بسم الله الرحمن الرحيم

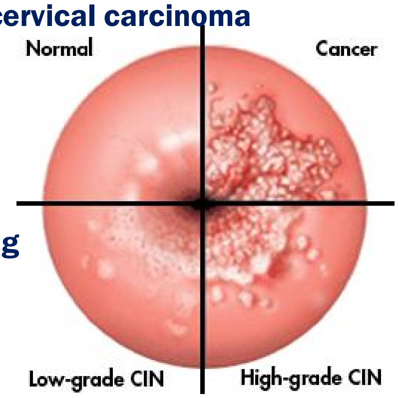
عنوان المحاضرة: Cervical Carcinoma
تاريخ المحاضرة: 27/5/2013
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Cervical Cancinoma:

●±3000 cases/ year ●Incidence falling → due to "Effective Screening"

●Nowadays, most patient are diagnosed in precancerous stages i.e. CIN (cervical intraepithelial neoplasia) aka → Cervical Dysplasia

Etiology: Oncogenic HPV (esp. types 16, 18): detected in 99.7% of cases of cervical carcinoma



Risk factors: 1-Sexual activity 2-Smoking 3-Immunosuppression

Presentation:

A) Symptoms:

1-No Symptoms (diagnosed during screening) 2-Post-coital bleeding
3-Inter-menstrual bleeding 4-Vaginal discharge 5-Post-menupausal bleeding

B) Signs:

1-Clinically: Irregular, friable cervix or ectropion (ectopy)
2-Colposcopy → "abnormal cervix"

**Colposcopy is illumination & magnification of the cervix and the tissues of the vagina and vulva, Acetic acid solution (5%) الخل is applied to the surface to improve visualization of abnormal areas

**The transformation zone is classified as:

●Type 1: completely ectocervical and fully visible,
●Type 2: partially endocervical but fully visible,
●Type 3: not fully visible (hidden)

3-Cone biopsy: (LLETZ: i.e. large loop excision of the transformation zone)



Investigations:

1-EUA (examination under anesthesia)/Cystoscopy / Sigmoidoscopy
2-MRI used for assessing parametria & LNs (any extension beyond cervix → NO surgery allowed)
3-Chest X-ray

Treatment: (use only one modality)

1-Early stage (e.g. Stage 1A):

a-Want to preserve fertility → Surgery (Cone biopsy + laparoscopic lymphadenectomy)
b-Doesn't want to preserve fertility → Radical hysterectomy and pelvic lymphadenectomy

> **Remember:**
> 1-Partial (subtotal) hysterectomy: has no indication at all
> 2-Total hysterectomy: removal of body & cervix
> 3-Radical (Wertheim) hysterectomy: removal of body + cervix + upper part of vagina (→ dyspareunia)
> 4-Pan hysterectomy: total + bilateral salpingo-oophrectomy

c-Cone biopsy can't remove the tumor but still want to get pregnant → "Radical Trachelectomy"
Removal of cervix + parametrium (with insertion of cerclage to avoid miscarriage)

2-Advanced disease: "Chemo/Radiotherapy"

●Side effects of radiotherapy: 1-Bladder: radiation cystitis, fistula 2-Rectum: radiation colitis, fistula 3-Pelvic tissue: fibrosis 4-Vagina: fibrosis, stenosis

●Side effects of chemotherapy: (Systemic) 1-Immunity suppression 2-Nausea and vomiting 3-Hair loss 4-Fatigue 5-Organ toxicity (e.g. Hepatotoxicity, Nephrotoxicity, Ototoxicity)

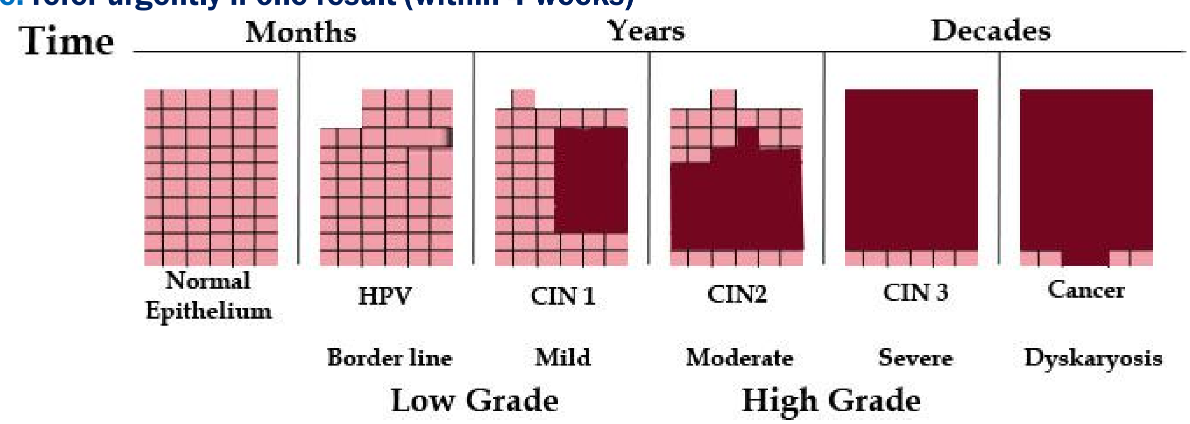
3-Patient will need HRT (Hormone Replacement Therapy)

FIGO Staging of Cervical carcinoma:

1→Carcinoma is strictly confined to the cervix; extension to the uterine corpus should be disregarded.	
1A	**Invasive cancer identified only microscopically. Invasion is limited to measured stromal invasion with a maximum depth of 5 mm and no wider than 7 mm.**
1A1	**Invasion of the stroma no greater than 3 mm in depth and no wider than 7 mm diameter.**
1A2	**Invasion of stroma > 3 mm but < 5 mm in depth and no wider than 7 mm in diameter.**
1B	**Clinical lesions confined to the cervix or preclinical lesions greater than Stage IA.**
1B1	**Clinical lesions no greater than 4 cm in size.**
1B2	**Clinical lesions greater than 4 cm in size.**
2→ Carcinoma extends beyond the cervix, but does not extend into the pelvic wall. The carcinoma involves the vagina, but not as far as the lower third.	
2A	**No obvious parametrial involvement. Involvement of up to the upper two-thirds of the vagina.**
2B	**Obvious parametrial involvement, but not into the pelvic sidewall.**
3→ Carcinoma has extended into the pelvic sidewall. On rectal examination, there is no cancer-free space between the tumour and the pelvic sidewall. The tumour involves the lower third of the vagina. All cases with hydronephrosis or a non-functioning kidne	
3A	**No extension into the pelvic sidewall but involvement of the lower third of the vagina.**
3B	**Extension into the pelvic sidewall or hydronephrosis or non-functioning kidney.**
4→ Carcinoma that has extended beyond the true pelvis or has clinically involved the mucosa of the bladder and/or rectum.	
4A	**Spread of the tumour into adjacent pelvic organs.**
4B	**Spread to distant organs.**

Cervical Screening & Precancerous life:

- **1st cervical smear at 25 years**
- **Dyskaryosis = Abnormal cells = refer to colposcopy**
  - ► **Borderline:** refer non urgently if 2 persistent (with 6 m inbetween)
  - ► **Mild:** refer non urgently if one result
  - ► **Moderate:** refer urgently if one result
  - ► **Severe:** refer urgently if one result (within 4 weeks)



- **Liquid base cystology:**

-has replaced traditional smear taking, potentially less unsatisfactory smear, Potential for HPV screening

Likelihood of Regression, Persistance & Progression:

	Regression	Invasion
CIN 1	57%	1%
CIN 2	43%	5%
CIN 3	32%	> 12%

Prevention: "**Cervical cancer vaccination**" (**at the age of 9-12 years**)

●Bivalent → HBV 16,18 **●Quadrivalent → HBV 6,11,16,18**

Potential obstacles to vaccine:

-Cost efficiency -Public, parent & patient acceptance -Vaccine efficacy -Impact on cervical screening
-Intervals between dose schedules -Emergence of other HPV types
-Should men??